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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|-----------------------|---------------------|------------------|
| 10/005,900 | 11/02/2001 | Maurice Haman Abraham | B-4360 619260-1 | 7206 |
| 7590 | 02/16/2005 | | EXAMINER | |
| c/o LADAS & PARRY Suite 2100 5670 Wilshire Boulevard Los Angeles, CA 90036-5679 | | | DALENCOURT, YVES | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2157 | |
| DATE MAILED: 02/16/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-----------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/005,900 | ABRAHAM ET AL. | |
| | Examiner Yves Dalencourt | Art Unit 2157 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 02 November 2001.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-8 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-8 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 06 March 2002 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 03/12/02.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
 5) Notice of Informal Patent Application (PTO-152)
 6) Other: _____.

DETAILED ACTION

This office action is responsive to communication filed on 11/02/2001.

Drawings

The boxes in figure 3 need to be labeled as required under 37 CFR 1.83(a).

Fig. 3 is objected because the three route nodes and the five work nodes are not identified with respect to the specification on page 3, paragraph [0042]. Applicants are advised to amend the identified drawing in order to be consistent with the specification.

Claim Objections

Claim 8 is objected to because of the following informalities: It is suggested to change the dependency of claim 8 to depend on claim 6 since a method claim cannot depend on an apparatus claim. For the purpose of examination, the examiner has considered claim 8 being dependent on claim 6. Appropriate correction is required.

Specification

The disclosure is objected to because of the following informalities: It is suggested to change “ workflow module 112 “ to -- workflow module 122 -- in paragraphs. [0021 – 0022].

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 – 2, and 4 - 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Rangachari et al (US 6,810,294; hereinafter Rangachari).

Regarding claims 1 and 6, Rangachari teaches a computer apparatus and method for implementing a workflow (fig. 2; col. 8, lines 12 – 15; col. 10, lines 1 - 11), the workflow being defined by a sequence of activity nodes (106, fig. 2; col. 8, lines 15 – 27; col. 10, lines 11 – 16; wherein the workflows are composed of activities 106 linked in meaningful ways, such as a sequence of a manufacturing processes, by routers 104). In particular, Rangachari discloses the claimed “ a process executor for arranging the execution of the activity nodes in accordance with the defined sequence and being arranged to provide, in accordance with the sequence, node definitions associated with the activity nodes to a node handler to allow the node handler to initiate execution of the activity node “(col. 8, lines 30 – 39; col. 10, lines 17 – 41; wherein a workflow engine 19 executes each activity 106 in a sequential manner as defined by the routers 104).

Regarding claims 2 and 7, Rangachari teaches the computer apparatus and the method of claims 1 and 6, wherein the node handler is arranged to simulate the

execution of a node activity for a provided node definition (19, fig. 1; col. 9, lines 40 – 65; col. 10, lines 41 – 45; Rangachari states that based on the attributes and rules specified by the individual activities 106 in the workflow 102, the work flow engine 19 presents each activity request to an activity client 108, which collects and composes all the information needed to fulfill the activity request).

Regarding claim 4, Rangachari teaches the computer apparatus of claim 1, which further comprising a process definer for defining the workflow (col. 10, lines 1 – 16; wherein the user interacts only with the highest architectural tier 103, that is the workflow 19, 100, to implement a standard operating procedure for the microelectronic manufacturing).

Regarding claim 5, Rangachari teaches the computer apparatus of claim 4, wherein the node handler is arranged to provide a node description to the process definer to allow the node description to be incorporated within a workflow definition (col. 10, lines 17 – 45; wherein the workflow engine 19 is an object that executes workflows defined by a user).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rangachari et al (US 6,810,294; hereinafter Rangachari) in view of Fiszman et al (US 6,115,646; hereinafter Fiszman).

Regarding claims 3 and 8, Rangachari discloses substantially the invention as claimed, including an application server 49 that may instantiate any workflow 102 registered with the workflow engine 19. Based on the attributes and rules specified by the individual activities 106 in the workflow 102, the workflow engine 19 presents each activity request to an activity client 108. Such workflow engine 19 changes the state of the activity 106 to complete and after evaluating the router logic proceeds to the next activity (see col. 9, lines 40 – 67). Rangachari discloses the idea of changing from one activity to the next one using the workflow engine 19, but fails to specifically teach a registration means for allowing association of an additional node handler to the process executor, the additional node handler being capable of initiating execution of a different type of activity node.

One skilled in the art recognizes that the process of registering an additional node in order to execute a different type of activity node, for example by using techniques such as a " software plug-in ", is well known in the art.

Fiszman, however, teaches in an analogous art, a dynamic and generic object-oriented process automation engine that provides workflow management services in heterogeneous distributed computing environment (fig. 3) comprises a registration means for allowing association of an additional node handler to the process executor, the additional node handler being capable of initiating execution of a different type of activity node (col. 7, lines 20 – 32; paragraph bridging col. 11, line 60 through col. 12, line 6; Fiszman discloses a tool manager that plugs a software application (a tool) into the CORBA bus. When the tool manager receives the executive invocation, it launches the tool (using the ORB) on the processing node specified in schedule similarly to the description provided by the Applicant (see specification page 4, paragraph 0066)).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Rangachari's device by incorporating a registration means for allowing association of an additional node handler to the process executor, the additional node handler being capable of initiating execution of a different type of activity node as evidenced by Fiszman for the purpose of allowing a system to be dynamically configurable at run time, and to permit the " plug and play " of new applications on the processing nodes without effecting previously existing processes, thereby, enhancing extensibility, and providing time and cost efficiency.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Anthony Franke Stuart (US Patent Number 6,466,935) discloses applying relational database technology to process control in manufacturing processes.

Jawahar et al (US Patent Number 6,298,356) discloses methods and apparatus for enabling dynamic resource collaboration.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yves Dalencourt whose telephone number is (571) 272-3998. The examiner can normally be reached on M-TH 7:30AM - 6: 00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (571) 272-4001. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 27, 2005



Yves Dalencourt